

Sn. 5673-5699  
Ny. 4938-4950  
No. 1.

Lower California

Cruise.

1911.



Original Record of Lieut. B.S. Barthelow, U.S.  
Navy, navigating officer, Lower California  
Cruise, 1911. - U.S.S. "Albatross".

2	1911	NORTH.	WEST						
STATION #	DATE	LATITUDE	LONGITUDE	CHART	DEPTH	BOTTOM	DIST	COURS	
BS 5673	MAR 1	31-26-00	117-42-00	H.O. 1006	1090	slt Gym	0.2	NE	
NO. 4929	" 2	29-10-20	118-15-45	" 1681	300				
" 9	" 2	8-50	17-50	" "	290	hard			
" 40	" 2	9-30	23-00	" "	110				
" 1	" 2	9-00	20	" "	30	Gravel			
" ✓	" 2	8-40	24-10	" "	27	" "			
" 3	" 2	8-00	30	" "	31	" "			
" 4	" 2	6-50	25-00	" "	58	gy s sh			
" 5	" 2	20	24-30	" "	42	cl s			
" 6	" 2	4-50	24-00	" "	25 to	"			
"	" 4			" "	12	"			
" 7	" 4	00-30	24-30	" "	89	slt			
" 8	" 4	28-19-30	25-50	" "	50		air 60	water 60	
" 9	" 4	29-01-15	23-00	" "	220	frgy s.			
" 50	" 4	29-01-15	22-50	" "	138	" "			
BS 5674	" 8	31-28-45	117-09-50	" 1149	590	" "	2.4	N 49 W	
" 5	" 15	27-07-08	114-33-10	" 1310	284	gnl. R. S.	0.7	250 W	
H 4952	" 17	25-31-15	113-29-30	" 1493	645	" " R. S.	0.2?	N 44 W	
H 4953	" 17	23-45	16-00	" "	735	" "	0.2	N. N. W.	
BS 5677	" 21	24-35-20	111-59-35	" 1636	13 1/2	S. beach	0.6	N 81 W	
" 9	" 22	23-47-45	112-00	" 1664	375	dk. g. m. S.	0.2?	N 68 W	
" 80	" "	40-30	12-45	" "	389	" "	0.2?	N 65 W	
" 81	" "	33-15	02-10	" "	405	" "	0.2?	N 68 W	
" 2	" 24	22-48-20	109-52-40	" 1666	491	S	.6	S 78 W	
" 3	Apr 30	46-45	50-15	" 1664	630	cs S. g. m. S.	1.5	S 26 W	
" 4	" 21	23-25-30	112-00-30	" "	1760	"	?	N 44 W (20)	
" 5	" 22	25-42-45	113-38-30	" 1493	645	W. S. R.	?	N 48 "	
" 6	" "	26-14-00	114-00-00	" "	930	gn m. S. R.	?	" "	
" 7	" 23	27-39-15	114-16-00	" 1310	480	gn m. "	1.5	S 72 W (20)	
" 8	" "	28-45	17-40	" "	525	" " S	2.0	S 85 W "	
" 9	" 24	29-23-00	116-14-00	" 1193	879	gn m. S. R.	?	N 87 W "	
" 90	" "	29-29-00	18-00	" "	1101	gn m. S. R.	?	S 92 W "	
" 1	" 25	31-08-20	118-29-30	" 1006	868	gn m. "	?	S 82 W "	
" 2	" "	23-45	31-30	" "	1076	gy "	?	S 82 W "	
" 3	" 26	33-13-30	120-04-30	CS 5002	451	No sample	?	N 86 W "	
" 4	" "	33-24-36	12-30	" "	660	gn m. "	?	S 63 W "	
" 5	" "	33-00	17-30	" "	534	gn m. S. R.	?	S 85 W "	
" 6	" 27	35-18-30	121-24-00	" "	460	No sample	?	N 63 W "	
" 7	" "	35	59-00	" "	485	gn m. S. R.	?	N 72 W "	



4

STATION	DATE	LATITUDE N	LONGITUDE W	CHART	DEPTH	BOTTOM	DIST	COURSE true
D5698	Apr 27, 1911	36-50-00	121-49-00	68, 5002	475	NO SAMP	?	N 72 W
9	" " "	36-00-30	121-00-00	" "	619	G M	?	286 W

BEARINGS TRUE

REMARKS

Pt San NG W Junipero 711 N 47 E

off Pt San Cal.

" " 11 12 E

" " " "



First dredging  
number for Lower Cali-  
fornia Cruise is D. 5673;  
next hydrographic is  
N. 4938.

(Bureau's letter of  
Feb'y. 17, 1911.)

---



bk	black
bl	blue
br	brown
brk	broken
C	Clay
Choc	Chocolate
Co	Coral
Corln	Coralline
crs	coarse
dk	dark
fne	fine
For	Formainifera
Frag	Fragments
G	Gravel
Glob	Globigerinae
gn	green
gy	gray
hrd	hard
Inf	Infusorial
Lav	Lava
lge	large
lt	light
M	Mud
Mang	Manganese
Nod	Nodules
Oz	Ooze
P	Pebbles
Part	Particles
Pter	Pteropods
R	Rock
rad	radiolarian
Rky	Rocky
rd	red
S	Sand
Sh	Shells
sml	small
Sp	Specks
St	Stones
stky	sticky
vol	volcanic
wh	white
yl	yellow

Dredge } No. *D 5673* Date, *March 1st*, 19*11*  
*Hydrog.*

Sdg. Mch. *Lucas* Reel *—* Shot } *35* lbs.  
Lead }

Turns *—* Cor'n *—* Depth *1090* fms.

Sdg. Cup *Sigsbee* Amt. Bot'm Sample *3 oz.*

Character of Bottom *bl. gy. m.*

Thermom. { Make *m. 2.* Cor'n { Instr. *—*  
No. *104914* Stem. *—*

Bottom-Reading *Finest Capiz* Cor'd Temp. *—*

Temp. Surf. { *56°* Time *6 a.m.* } Air { *56°*  
                  { *58°* Time *9 a.m.* }           { *58°*

Density: Surf. *—* fms. *—*

Wind: Direction *S.E.* Force *2*

Baromet. *30.18-30.23* Amt. of Clouds *4* State of Sea *S*

Weather *b.*

Direction and Force of Current { Surface *—*  
  Bottom *—*

Tide *—*

General Locality *Near Boundary bet. Mexico & U.S.*

*37° 22' 40" S - 117° 18' 30" W - 116° 46' W - bore N 42 E;*

Position *31° 26' 00" N - 117° 42' 00" W.*

Chart used: No. *H.O. 1006* Ed'n *1887*

Drift: Direction *N. E.* Distance *0.2*

Depth of Haul *Bottom*

Apparatus and Rig used *12 Agassiz 3 fms floats 1 Tail weight 1 mud bag 2 wing wts. (20 lb. sq.)*

Time towing *—* h. *28* m.

Remarks: *One bottle stop carried away*

*See above*  
*Bot. Temp. reading 13.8° C. 56.9° F.*  
*Salinometer 25.*

*Surf. Temp. reading 15° C. 59.0° F.*  
*Salinometer 24.2*

Deck Officer *H. T. Johnson* Recorder *H. J. Fisher*

*Mr. Tolange.* *Atukil -*

## SOUNDING WIRE.

M. Down. Up. M.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

0  
100  
200  
300  
400  
500  
600  
700  
800  
900  
1000  
1100  
1200  
1300  
1400  
1500  
1600  
1700  
1800  
1900  
2000  
2100  
2200  
2300  
2400  
2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000  
4100  
4200  
4300  
4400  
4500  
4600  
4700  
4800  
4900

4 fms. down - 300 fms. up  
10 fms. down - 300 fms. up  
15 fms. down - 300 fms. up

~~Hydrog.~~ } No. 4958 Date, May 2, 1911  
Sdg. Mch. Tur-Bleak Reel \_\_\_\_\_ Shot }  
Lead } \_\_\_\_\_ lbs.

Sdg. Mch. *Turk-Blaik* Reel ----- Shot }  
Lead } ----- lbs.

Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth 300 fms.

Sdg. Cup *1.00* Amt. Bot'm Sample *1.00*

Character of Bottom

Thermom.  $\left\{ \begin{array}{l} \text{Make} \\ \text{No.} \end{array} \right.$  Cor'n  $\left\{ \begin{array}{l} \text{Instr.} \\ \text{Stem.} \end{array} \right.$

Bottom Reading . . . Cor'd Temp. . .

Temp. Surf. {  $59^{\circ}$  Time 7.00 a.m. } Air {  $58^{\circ}$   
Time

Density: Surf. fms.

Wind: Direction                      Force                     

Baromet.	Amt. of Clouds	State of Sea.
----------	----------------	---------------

Weather

Direction and Force of Current.	Surface	.....
	Bottom	.....

*Tide* g 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

General Locality *15 mi. N. of 84 W. 2nd St. N. W.*  
*7th St. 1.5 mi.*

Position  $29^{\circ} 10' 50'' N. 112^{\circ} 15' 45'' W.$

Chart used: No. N.O. 1681 Ed'n Rev. 1897

Drift: Direction \_\_\_\_\_ Distance \_\_\_\_\_

Depth of Haul . . . . . 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1

### Apparatus and Rig used

<i>Time towing</i>	<i>h.</i>	<i>m.</i>
--------------------	-----------	-----------

Remarks:

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_

## SOUNDING WIRE.

M. Down. | Up. | M.

FMS.

## DREDGING CABLE.

M. Down. | Up. | M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Bridge } No. 4437 Date, Mar 22, 1911  
Hydrog. }

Sdg. Mch. Tui-Blish Reel Shot Lead lbs.

Turns Cor'n Depth 24 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 57° Time 8:00 a. } Air { 61° Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality Tui-Blish, N. 12 E.

Position 34 08' 50" N. 118° 17' 30" W.

Chart used: No. H.C. 1681 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

7 55 40 290 300

11-1023



SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
	9	10	00	110		
			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

~~Hydrog.~~ } No. 4941 Date, Nov. 5, 1911

Sdg. Mch. T. P. Reel Shot/Lead lbs.

Turns Cor'n Depth 20 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom cr bl s.

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 51 Time 7 { Air { 62 Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality Cape Cod, N. 18° 40',  
Coast north side of island, N 75° E.

Position 29° 09' 00" N. 118° 23' 20" W.

Chart used: No. 1681 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

## SOUNDING WIRE.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

M. Down. Up. M.

					0
9	25	5			30 100
					200
					300
					400
					500
					600
					700
					800
					900
					1000
					1100
					1200
					1300
					1400
					1500
					1600
					1700
					1800
					1900
					2000
					2100
					2200
					2300
					2400
					2500
					2600
					2700
					2800
					2900
					3000
					3100
					3200
					3300
					3400
					3500
					3600
					3700
					3800
					3900
					4000
					4100
					4200
					4300
					4400
					4500
					4600
					4700
					4800
					4900

~~Dredge~~ } No. 442 Date, Mar. 2, 1911  
Hydrog. }

Sdg. Mch. Trawl Reel Shot  
Leads lbs.

Turns Cor'n Depth 27 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom m. bl. s.

Thermom. { Make Cor'n { Instr.  
No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 57 Time 10:00 } Air { 61  
Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface  
Bottom

Tide

General Locality Elephant Rock, N. 1911

From north side of island N. 65° E

Position 24° 08' 40" N. 118° 34' 10" W.

Chart used: No. H.O. 168 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

Deck Officer Recorder

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
9 50 00			27 100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Hydrog. } No. 4943 Date, Mar 2, 1911  
Sdg. Mch. J. B. Black Reel Shot Lead lbs.

Turns Cor'n Depth 21 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom 27 fms.

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 57 Time 10:30 } Air { 64 Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality Elephant Rock, S 40° E. 60 north side of island, N. 60° E.

Position 59 02' 00" N, 118° 24' 30" W.

Chart used: No. 11. 1681 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
10 05 00			3/ 100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

~~Depth~~ } No. 4944 Date, Mar 2, 1911

Sdg. Mch. Tur Reel Shot/Lead lbs.

Turns Cor'n Depth 58 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom gy S. Sh.

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 59° Time 10:00 } Air { 64° Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality Elephant Rocks, 71. 64. S. Rocks at St. Michael Pt. S. 11. E.

Position 39° 06' 30" N. 118° 35' 00" W.

Chart used: No. H. O. 1681 Ed'n.

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:



SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
10	2500		58 100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

~~Hydrog.~~ } No. 45 Date, Mar. 25, 1911

Sdg. Mch. *Tri-Bloch* Reel *Shatt* lbs.  
Lead

Sdg. Cup	Amt. Bot'm Sample
Character of Bottom	Sh. cr. s.

Thermom. { Make -----  
              { No. -----

Cor'n { Instr. -----  
         { Stem. -----

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. {  $60^{\circ}$  Time  $11:00$  } Air {  $66^{\circ}$  }

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

General Locality *Elm. Riv. 21. 17° E.*

Roses at Lincoln Hl. Aug 15

Position 54° 06' 20" N. 118° 24' 30" W.

Chart used: No. H. O. 1681 Ed'n \_\_\_\_\_

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
--- M.	Down.	Up: --- M.		--- M.	Down.	Up: --- M.
			0			
11	00	00	<del>45</del> 100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Hydrog. No. *4946* Date, *May 11*, 19*11*  
*Lead line* Reel Shot/Lead lbs.

Turns Cor'n Depth *25412* fms.

Sdg. Cup -- Amt. Bot'm Sample

Character of Bottom *gy. m. s.*

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { *60-61* Time *11:30-2:00* { Air { *66-63* Time ..

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide *High water*

General Locality *Midway between points of E. and W. Roads and Steamer pier.*

Position *24° 01' 50" N 115° 30' 00" W.*

Chart used: No. *N. O. 1681* Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing: h. m.

Remarks:

## SOUNDING WIRE.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

M. Down. Up. M.

0

11:30.45m

25-12-1000

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. 1111 Date, July 1, 1901

Sdg. Mch. T. Reel Shot/Lead lbs.

Turns Cor'n Depth 89 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom Sand.

Thermom. { Make No. Cor'n { Instr. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 60 Time 4:00 } Air { 60 Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide S 23 E

General Locality S 21 E

Position 29-00-30 N 118-24-00 W

Chart used: No. HO 1681 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

Deck Officer Recorder

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
2 08 - 1 55			0			
1			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

~~Hydrog.~~ } No. 4644 Date, Jan 1, 1900  
Sdg. Mch. 77 Reel ~~Shot~~ Lead } lbs.

Turns Cor'n Depth 250 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { Time } Air { Time }

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide (N.W.)

General Locality North Atlantic Ocean  
in the T-10 - Jan 1, 1900

Position 28-53-30 N - 114-12-00 W

Chart used: No. 750 1681 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

Deck Officer Recorder



## SOUNDING WIRE.

M. Down. Up. M.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Hyd. No. 4055 Date, Oct 18, 1903

Sdg. Mch. 71 Reel Shot/Lead lbs.

Turns Cor'n Depth 226 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom fine S.

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 60° Time 4:20 } Air { 61° Time

Density: Surf. fms.

Wind: Direction Force

Baromet. Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality Pt. Liza, S. I.

71 fms. from shore

Position 28-41-15 N - 118-22-00 W

Chart used: No. 110 1681 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Time towing h. m.

Remarks:

Deck Officer Recorder

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
M. Down.	Up.	M.			M. Down.	Up.	M.	
				0				
				100				
				200				
63			2 1/2	300				
				400				
				500				
				600				
				700				
				800				
				900				
				1000				
				1100				
				1200				
				1300				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
				2200				
				2300				
				2400				
				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
				3300				
				3400				
				3500				
				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

Hydrog. No. 403 Date, Dec 11, 1900  
Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot/Lead \_\_\_\_\_ lbs.

Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth 138 fms.

Sdg. Cup \_\_\_\_\_ Amt. Bot'm Sample \_\_\_\_\_

Character of Bottom S

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
                  { No. \_\_\_\_\_                         { Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. { 60° Time 4:45 } Air { 60  
                  { \_\_\_\_\_ Time \_\_\_\_\_ } \_\_\_\_\_

Density: Surf. \_\_\_\_\_ fms.

Wind: Direction \_\_\_\_\_ Force \_\_\_\_\_

Baromet. \_\_\_\_\_ Amt. of Clouds \_\_\_\_\_ State of Sea \_\_\_\_\_

Weather \_\_\_\_\_

Direction and Force of Current { Surface \_\_\_\_\_  
  { Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality St. N. 20. 2

Position 29-01-15

Chart used: No. 750 1681 Ed'n \_\_\_\_\_

Drift: Direction \_\_\_\_\_ Distance \_\_\_\_\_

Depth of Haul \_\_\_\_\_

Apparatus and Rig used \_\_\_\_\_

Time towing \_\_\_\_\_ h. \_\_\_\_\_ m.

Remarks: \_\_\_\_\_

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
			100			
4 43	-		200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Also made a Hydro (No 1951)

Dredge } No. 317 Date, , 1911

Sdg. Mch. Lucas Reel Lucas Shot/Lead lbs.

Turns 340 Cor'n 750 Depth 590 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom

Thermom. { Make W.G. Cor'n { Instr. No. 104914 Stem.

Bottom Reading 7.5 Cor'd Temp. 21.4

Temp. Surf. { 58° Time 6:00 AM } Air { 60° 59° Time 8:00 AM } 61°

Density: Surf. fms.

Wind: Direction E.S.E. Force 1

Baromet. Amt. of Clouds 9 State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality 31° 82' 60" N. 22° E.

Bluff Rock (1450') N 78° E.

Position 31° 28' 45" N 117° 09' 30" W.

Chart used: No. N. 1149 Ed'n

Drift: Direction N. 49° W. Distance

Depth of Haul

Apparatus and Rig used 12' Agassiz, & glass

Time towing h. 24 1/2 m.

Remarks: See sounding

- 5.5

15.2

24.3

Also made a Hydro Sta (No 1951)

Deck Officer Recorder

Mr. J. G. ...

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
6 04 18	6 20 35		0	6 32 00	8 37 30	
05 31	19 57		100	05 31	38 00	
06 35	19 56		200	06 35	38 30	
07 38	19 55		300	07 38	39 00	
08 41	19 54		400	08 41	39 30	
09 45	19 53		500	09 45	40 00	
6 10 30	19 52		600	10 30	40 30	
			700	7 02 25	41 00	
			800	07 25	41 30	
			900	11 00	42 00	
			1000	11 00	42 30	
" 3 "			1100	7 25	43 00	
" 1 "			1200	7 25	43 30	
			1300	47 30	44 00	
			1400	7 47 30	44 30	
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 567 Date, June 1, 1911

Sdg. Mch. Lucas Reel 2 Shot 55 lbs.

Turns 284 Cor'n - Depth 284 fms.

Sdg. Cup Amt. Bot'm Sample 1

Character of Bottom

Thermom. { Make No. Cor'n { Instr. Stem.

Bottom Reading 448 Cor'd Temp. 44.6

Temp. Surf. { 64° Time 2:00 } Air { 67°  
63° Time 3:00 } 67°

Density: Surf. fms.

Wind: Direction WSW Force 2

Baromet. 29.7 Amt. of Clouds 2 State of Sea S

Weather bc

Direction and Force of Current { Surface Bottom

Tide

General Locality Lower Cal.

Position 27° 51' N 117° 15' W

Chart used: No. H.O. 1310 Ed'n.

Drift: Direction S 50 W Distance 0.7 mi.

Depth of Haul Bottom

Apparatus and Rig used

Time towing - h. 20 m.

Remarks:

Deck Officer W. C. Adams Recorder



SOUNDING WIRE.				FMS.	DREDGING CABLE.			
<i>P</i> M. Down.	Up.	<i>P</i> M.			<i>P</i> M. Down.	Up.	<i>P</i> M.	
2 01	10	2 16	✓	0	2 25	40	3 24	30
09	20	15	25	100	28	10	25	20
15	25	14	10	200	35	15	22	30
"	20	2	10	300	35	20	16	50
				400	41	00	16	30
				500	46	00	13	30
				600	2 50	00	3	10
				700				
				800				
				900				
				1000				
				1100				
				1200				
				1300				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
				2200				
				2300				
				2400				
				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
				3300				
				3400				
				3500				
				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

also made a Hydro. (No. 4952)

Dredge } No. 5-624 Date, October 17, 1911

Sdg. Mch. Lucas Reel Lucas Shot/Lead 3 lbs.

Turns 647 Cor'n - 2 Depth 645 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample

Character of Bottom gy S l

Thermom. { Make 1124 Cor'n { Instr. No. 104014 Stem.

Bottom Reading 322 Cor'd Temp. 39.0

Temp. Surf. { 66° Time 8:00 a. } Air { 65° 65° Time 9:00 } 70

Density: Surf. 1.026 fms.

Wind: Direction N Force 1

Baromet. 29.96 Amt. of Clouds 1 State of Sea 2

Weather bc

Direction and Force of Current { Surface Bottom

Tide,

General Locality

Position 25° 31' 15" N 113° 24' 30" W

Chart used: No. H.O. 1493 Ed'n

Drift: Direction 27 W x W Distance 0.2

Depth of Haul 6000

Apparatus and Rig used

1 foot vertical

1 foot vertical

Time towing h. 20 m.

Remarks:

Bot. Temp. 16.6 Sp. Gr. 24.6  
Surf. " 18.3° " 23.8

Deck Officer

Recorder

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
M. Down.		Up.			M. Down.		Up.	
6	27	8	26	0	6	30	8	28
11	00	23	03	100	37	45	35	30
		24	45	200	42	45	34	30
		25	30	300	48	30	33	30
		22	15	400	52	40	32	30
		21	00	500	55	30	31	30
16	06	19	15	600	52	40	39	20
8	16	40	8	645	55	50	36	20
				800	58	35	33	00
				900	01	45	30	00
				1000	9	06	10	7
				1100				
				1200				
				1300				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
				2200				
				2300				
				2400				
				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
				3300				
				3400				
				3500				
				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

Also made a Hydro. (No. 4953)

Dredge } No. 5611 Date, 11-11-1901  
Hydrog. }  
Sdg. Mch. Reel Shot 35 lbs.  
Turns 737 Cor'n 2 Depth 735 fms.  
Sdg. Cup Amt. Bot'm Sample 3  
Character of Bottom fine, S. Glob.

Thermom. { Make 11-2-8  
No. 104914 Cor'n { Instr.  
Stem.  
Bottom Reading 39.8 Cor'd Temp. 38.6  
Temp. Surf. { Time 1:00 70  
Time 2:00 70 Air 70

Density: Surf. fms.  
Wind: Direction N.W. Force 3  
Baromet. 29.88 Amt. of Clouds 3 State of Sea S  
Weather fog

Direction and Force of Current { Surface  
Bottom

Tide

General Locality

Position 35° 23' 45" N 112° 16' 00" W  
Chart used: No. H.O. 1493 Ed'n  
Drift: Direction N.W. Distance 0.2  
Depth of Haul Bottom

Apparatus and Rig used  
Towing weight 125  
Time towing h. m.

Remarks: R's  
2 minutes  
30 seconds

Bot. Temp. 18.6; Sp. Gr. 28.2  
Surf. " 19.1 " 23.2

Deck Officer Recorder.

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		P. M. Down.	Up.	P. M.
1	1	21	0	1	22	22
1	2	20	100	1	23	21
1	3	19	200	1	24	20
1	4	18	300	1	25	19
1	5	17	400	1	26	18
1	6	16	500	1	27	17
1	7	15	600	1	28	16
1	8	14	700	1	29	15
1	9	13	800	1	30	14
			900	2	03	27
			1000	2	05	25
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			



## SOUNDING WIRE.

M. Down. | Up. | .... M.

FMS.

## DREDGING CABLE.

M. Down. | Up. | .... M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. 222 Date, Feb 2, 19

Sdg. Mch. Reel Shot/Lead 35 lbs.

Turns 225 Cor'n Depth 325 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom 42'

Thermom. { Make No. 104914 Cor'n { Instr. Stem.

Bottom Reading 44.3 Cor'd Temp. 44.1

Temp. Surf. { 67° Time 7:21 } Air { 65°  
67° Time 7:38 }

Density: Surf. fms.

Wind: Direction WNW Force 3

Baromet. 30.04 Amt. of Clouds 10 State of Sea 2

Weather 0.

Direction and Force of Current { Surface Bottom

Tide

General Locality

Position 33° 47' 45" N, 111° 33' 00" W

Chart used: No. 401664 Ed'n

Drift: Direction N. 68° W. Distance 0.2

Depth of Haul bottom.

Apparatus and Rig used 12' Agassiz, 2 gins

flots, 12 lb sinker, 2 wing

1 tail weight, 10 lb

Time towing h. 11 m.

Remarks:

Bottom water specimen  
lost in Lob. through oversight

Deck Officer Recorder

11-1023



SOUNDING WIRE.			FMS.	DREDGING CABLE.		
A. M. Down.	Up.	A. M.		A. M. Down.	Up.	R. M.
			0			
38 48	44 20		100	7 00 10		5 4 30
39 35	43 15		200	08 40		5 1 20
			300			
			400			
			500	16 35		4 0 20
			600	7 20 40	7	3 6 40
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 161 Date, Feb 19, 1903

Sdg. Mch. Reel Shot / Lead lbs.

Turns 389 Cor'n Depth 389 fms.

Sdg. Cup Agassiz Amt. Bot'm Sample 20 g.

Character of Bottom fine gr. m. s. fl. cor.

Thermom. { Make No. 104984 Cor'n { Instr. Stem.

Bottom Reading 13.9° Cor'd Temp. 26.6

Temp. Surf. { 68° Time 10:09 Air { 68°  
65 Time 11:27

Density: Surf. fms.

Wind: Direction N.N.W. Force 3

Baromet. 30.04 Amt. of Clouds 10 State of Sea S

Weather 6-6

Direction and Force of Current { Surface Bottom

Tide

General Locality

Position 33° 40' 30" N. 111° 12' 45" W

Chart used: No. 1664 Ed'n

Drift: Direction N. 68° W. Distance 0.2

Depth of Haul

Apparatus and Rig used 12 Agassiz  
spec. ghts, 1 Tail line  
1 lb. sinker

Time towing 1 1/2 m.

Remarks: Bottom water specimen  
lost in box

Bot. Temp. 15° C. Sp. Gr. 26.6  
Surf. " 20° " " 22.6

Deck Officer Recorder 11-1023

## SOUNDING WIRE.

M. DOWN.		UP.	
10	05 20	10	14
	06 20		13
	07 10		12
	08 05		11
	09 05		10

## DREDGING CABLE.

FMS.	DREDGING CABLE.		M. Down. Up. M.	
0	10	2	15	15
100	10	2	15	15
200	10	2	15	15
300	10	2	15	15
400	10	2	15	15
500	10	2	15	15
600	10	2	15	15
700	10	2	15	15
800	10	2	15	15
900	10	2	15	15
1000	10	2	15	15
1100	10	2	15	15
1200	10	2	15	15
1300	10	2	15	15
1400	10	2	15	15
1500	10	2	15	15
1600	10	2	15	15
1700	10	2	15	15
1800	10	2	15	15
1900	10	2	15	15
2000	10	2	15	15
2100	10	2	15	15
2200	10	2	15	15
2300	10	2	15	15
2400	10	2	15	15
2500	10	2	15	15
2600	10	2	15	15
2700	10	2	15	15
2800	10	2	15	15
2900	10	2	15	15
3000	10	2	15	15
3100	10	2	15	15
3200	10	2	15	15
3300	10	2	15	15
3400	10	2	15	15
3500	10	2	15	15
3600	10	2	15	15
3700	10	2	15	15
3800	10	2	15	15
3900	10	2	15	15
4000	10	2	15	15
4100	10	2	15	15
4200	10	2	15	15
4300	10	2	15	15
4400	10	2	15	15
4500	10	2	15	15
4600	10	2	15	15
4700	10	2	15	15
4800	10	2	15	15
4900	10	2	15	15

Dredge } No. 5681 Date, Mar. 22, 1911

Sdg. Mch. Lucas Reel L Shot 35 lbs.

Turns 425 Cor'n Depth 405 fms.

Sdg. Cup 79500 Amt. Bot'm Sample 2000

Character of Bottom (fine S. M.) at 375 fms

Thermom. { Make W.S. Cor'n { Instr. No. 1544 Stem.

Bottom Reading 15.5 Cor'd Temp. 43.3°

Temp. Surf. { 68° Time 2 pm } Air { 68° Time 3 pm }

Density: Surf. fms.

Wind: Direction WNW Force 3

Baromet. 29.98 Amt. of Clouds 10 State of Sea S

Weather overcast

Direction and Force of Current { Surface Bottom

Tide

General Locality

Position 23° 33' 15" N 111° 02' 10" W

Chart used: No. N.O. 1664 Ed'n

Drift: Direction N. 68° W Distance 0.2

Depth of Haul 15 fms.

Apparatus and Rig used 12' beam trawl, 2 min.

1 fish, 3 crabs, 1 starfish, 1 sea slug

Time towing — h. 20 m.

Remarks: Trawl used in 100' but failed to haul.

Deck Officer J. B. B. Recorder J. B. B.

## SOUNDING WIRE.

M. Down.	Up.	M.
7 04 50	7 13 15	
05 35	12 05	
06 30	11 20	
07 20	10 20	
08 15	09 15	
7 18 18	7 00 20	105

FMS.

## DREDGING CABLE.

M. Down.	Up.	M.
2 22 40	3 16 00	
26 30	28 40	
29 40	19 50	
32 40	17 05	
36 15	13 50	
40 30	10 30	
42 45	08 50	
2 45 30	3 04 55	

0  
100  
200  
300  
400  
500  
600  
700  
800  
900  
1000  
1100  
1200  
1300  
1400  
1500  
1600  
1700  
1800  
1900  
2000  
2100  
2200  
2300  
2400  
2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000  
4100  
4200  
4300  
4400  
4500  
4600  
4700  
4800  
4900

Dredge } No. 1682 Date, Oct 1, 1907

Sdg. Mch. Lucas Reel Lucas Shot/Lead 1 lb.

Turns 491 Cor'n Depth 491 fms.

Sdg. Cup Sigsbee Amt. Bot'm Sample trace

Character of Bottom S.

Thermom. { Make N. 2. No. 124914 Cor'n { Instr. Stem.

Bottom Reading 41' Cor'd Temp. 40.8°

Temp. Surf. { 69.7 Time 8:00 a.m. Air { 10.0

Density: Surf. Water bottle defective

Wind: Direction West Force 5

Baromet. 30.96 Amt. of Clouds 2 State of Sea 1

Weather C. S.

Direction and Force of Current { Surface Bottom

Tide

General Locality

Position 2°

Chart used: No. 1166 Ed'n

Drift: Direction S 18 W. Distance .6

Depth of Haul 12 oam

Apparatus and Rig used

Time towing h. 1.0 m.

Remarks:

Deck Officer Recorder

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
A. M. Down.	Up.	A. M.		A. M. Down.	Up.	A. M.
		50	0		50	1 05
28 10	35 45		100	3 53	05	9 01 40
28 45	35 00		200	56	3	5 58
29 50	34 20		300	59	50	
30 40	33 40		400	8 03	15	5
7 3			500	1 1	15	
			600	10	30	4
			700	1 1	15	
			800	8	1 1	8
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 383 Date, Feb 20, 1911

Sdg. Mch. Lucas Reel 2 Shot 35 lbs.

Turns 360 Cor'n — Depth 630 fms.

Sdg. Cup C. 1000 Amt. Bot'm Sample 2 3/4

Character of Bottom gy. s. m. G.

Thermom. { Make N 3 Cor'n { Instr. —  
No. 10101 Stem. —

Bottom Reading 39° 3 Cor'd Temp. 39.1

Temp. Surf. { 73° Time 1:00 P } Air { 70  
73° Time 2:00 P } 69

Density: Surf. — fms. —

Wind: Direction West Force 3

Baromet. 29.85 Amt. of Clouds 2 State of Sea 2

Weather bc

Direction and Force of Current { Surface —  
Bottom —

Tide —

General Locality off San Juan Bay, P.R.  
2 1/2 miles from Cape Cordero, P.R.

Position 22° 46' 45" N - 109° 50' 15" W

Chart used: No. 11664 Ed'n. —

Drift: Direction S 20° E Distance 1.5 miles

Depth of Haul Bottom

Apparatus and Rig used 3' beam trawl, 1/2" mesh  
No. 5, 1000, 1000, 1000.

Time towing — h. 1 m.

Remarks: 11 specimens of fish, 1 specimen of starfish.

Spec. No. 45

Sp. gr. 21

Spec. No. 23.5

Sp. gr. 23.2

Deck Officer J. C. ... Recorder F. M. ...



## SOUNDING WIRE.

M. Down.	Up.	M.
12 41 20	12 56 20	
42 15	55 40	
43 15	54 30	
44 15	53 10	
45 10	51 50	
46 10	50 30	
47 10	49 00	
12 47 20	48 50	

FMS.

0  
100  
200  
300  
400  
500  
600  
700  
800  
900  
1000  
1100  
1200  
1800  
1400  
1500  
1600  
1700  
1800  
1900  
2000  
2100  
2200  
2300  
2400  
2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000  
4100  
4200  
4300  
4400  
4500  
4600  
4700  
4800  
4900

## DREDGING CABLE.

M. Down.	Up.	M.
1 05 5	1 48 5	
1 05 5	1 5 20	
1 12 00	1 42 20	
1 15 15	39 00	
1 15 15	35 10	
1 21 25	32 15	
1 24 25	28 30	
1 27 00	24 20	
1 29 45	20 00	
1 32 15	16 15	
1 37 15	09 35	
1 41 10	1 10	

1. Bridge  
carried away.  
runners twisted.

↑

Dredge } No. \_\_\_\_\_ Date, \_\_\_\_\_, 190

Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot & Lead \_\_\_\_\_ lbs.

Turns 1760 Cor'n \_\_\_\_\_ Depth 1760 fms.

Sdg. Cup \_\_\_\_\_ Amt. Bot'm Sample \_\_\_\_\_

Character of Bottom \_\_\_\_\_

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
No. 104914 Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. { 67° Time 6 am } Air { 61°  
67° Time 9 " } 61°

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

Wind: Direction N.N.W. Force 3

Baromet. \_\_\_\_\_ Amt. of Clouds \_\_\_\_\_ State of Sea \_\_\_\_\_

Weather \_\_\_\_\_

Direction and Force of Current { Surface \_\_\_\_\_  
Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality \_\_\_\_\_ Bay

Position 23° 23' 30" N, 112° 0' 0" W

Chart used: No. 1664 Ed'n \_\_\_\_\_

Drift: Direction 71 (1) x (1) Distance 2

Depth of Haul \_\_\_\_\_

Apparatus and Rig used \_\_\_\_\_

Time towing h. 30 m.

Remarks: \_\_\_\_\_

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_

## SOUNDING WIRE.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

M. Down. Up. M.

6	06	00	6	48	50
	06	45		49	00
	07	50		48	00
	08	50		47	00
	09	50		46	00
	10	45		44	40
	11	45		43	30
	12	45		42	20
	13	45		41	10
	14	50		40	00

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

7	00	40	7	31	00
	04	15		30	00
	07	30		29	00
	11	00		28	00
	15	30		27	00
	18	10		26	00
	22	00		25	00
	25	00		24	00
	28	00		23	00
	31	00		22	00

	34	00		21	00
	37	00		20	00
	40	00		19	00
	43	00		18	00
	46	00		17	00
	49	00		16	00
	52	00		15	00
	55	00		14	00
	58	00		13	00
	61	00		12	00

Dredge } No. 515 Date, Oct 22, 1911

Sdg. Mch. Lucas Reel Shot } 35 lbs.  
Lead }

Turns 645 Cor'n — Depth 645 fms.

Sdg. Cup Sigsbee Amt. Bot'm Sample

Character of Bottom gy. s. bk.

Thermom. { Make T. 3 Cor'n { Instr.  
No. 108018 Stem.

Bottom Reading 24° (2) Cor'd Temp.

Temp. Surf. { 61° Time 8 a } Air { 60°  
61° Time 9 a } 61

Density: Surf. fms.

Wind: Direction NW Force 3

Baromet. 30.03 Amt. of Clouds 4 State of Sea S

Weather bc

Direction and Force of Current { Surface  
Bottom

Tide

General Locality 20 miles S. of Cape Cod, Mass.

Position 75° 45' - 45' W, 41° 28' - 28' N

Chart used: No. 1111 Ed'n 6000

Drift: Direction NW by S Distance 2

Depth of Haul Bottom

Apparatus and Rig used 12' beam trawl

Time towing h. 30 m.

Remarks: Trawl hauled up at 10:10. 10 fms. haul.

Deck Officer J. T. ... Recorder E. J. ...

## SOUNDING WIRE.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

M. Down. Up. M.

8	07	5	8	25	30	0
	08	45		25	30	100
	09	40		25	30	200
	10	35		25	30	300
	11	30		25	30	400
	12	25		25	30	500
	13	20		25	30	600
8	14	15	8	15	15	700
						800
						900
						1000
						1100
						1200
						1300
						1400
						1500
						1600
						1700
						1800
						1900
						2000
						2100
						2200
						2300
						2400
						2500
						2600
						2700
						2800
						2900
						3000
						3100
						3200
						3300
						3400
						3500
						3600
						3700
						3800
						3900
						4000
						4100
						4200
						4300
						4400
						4500
						4600
						4700
						4800
						4900

8	13	5	10	25	30
	14	45		25	30
	15	40		25	30
	16	35		25	30
	17	30		25	30
	18	25		25	30
	19	20		25	30
	20	15		25	30
8	21	10	8	15	15
	22	05		15	15
	23	00		15	15
	24	55		15	15
	25	50		15	15
	26	45		15	15
	27	40		15	15
	28	35		15	15
	29	30		15	15
	30	25		15	15

Dredge } No. 3-12 Date, Dec 22, 1911

Hydrog. } Sdg. Mch. Lucas Reel Lucas Shot 35 lbs.

Turns 730 Cor'n — Depth 930 fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom gy. M. S. L.

Thermom. { Make 22 Cor'n { Instr. No. 105018 Stem.

Bottom Reading 37° Cor'd Temp. 37° 3

Temp. Surf. { 61° Time 3 p.m. } Air { 60° 61° Time 4 " }

Density: Surf. fms.

Wind: Direction Force 1/

Baromet. 29.96 Amt. of Clouds 0 State of Sea C

Weather b.

Direction and Force of Current { Surface Bottom

Tide

General Locality On the bottom, R.W. of

Position 11° 14' 00" N. 114° 00' 00" W.

Chart used: No. H.C. 1472 Ed'n

Drift: Direction W. x S. Distance ?

Depth of Haul Bottom

Apparatus and Rig used 12' ...

160 lbs.

Time towing h. 2 m.

Remarks: Sdg. cup at surface.

75% ...

Deck Officer Recorder C. E. ...

11-1023

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
P	M. Down.	Up. P. M.		P	M. Down.	Up. P. M.
3	57 20	33 40	0	3	40 20	33 20
	08 25	32 10	100		45 30	32 10
	09 15	31 20	200		46 30	31 20
	10 00	29 25	300		47 20	30 20
	11 00	28 10	400		48 20	29 10
	11 55	26 50	500		49 15	28 10
	12 40	25 00	600	4	01 55	27 10
	13 40	22 35	700		02 50	26 10
	14 40	20 30	800		03 40	25 10
	15 45	18 05	900		04 30	24 10
3	16 05	17 20	1000		05 20	23 10
			1100		06 10	22 10
			1200		07 00	21 10
			1300		08 00	20 10
			1400		09 00	19 10
			1500		10 00	18 10
			1600		11 00	17 10
			1700		12 00	16 10
			1800		13 00	15 10
			1900		14 00	14 10
			2000		15 00	13 10
			2100		16 00	12 10
			2200		17 00	11 10
			2300		18 00	10 10
			2400		19 00	09 10
			2500		20 00	08 10
			2600		21 00	07 10
			2700		22 00	06 10
			2800		23 00	05 10
			2900		24 00	04 10
			3000		25 00	03 10
			3100		26 00	02 10
			3200		27 00	01 10
			3300		28 00	00 10
			3400		29 00	
			3500		30 00	
			3600		31 00	
			3700		32 00	
			3800		33 00	
			3900		34 00	
			4000		35 00	
			4100		36 00	
			4200		37 00	
			4300		38 00	
			4400		39 00	
			4500		40 00	
			4600		41 00	
			4700		42 00	
			4800		43 00	
			4900		44 00	

11-16234



## SOUNDING WIRE.

M. Down.	Up.	M.
12 37 00	12 50 00	
38 00	12 58 35	
38 50	12 59 50	
39 20	13 00 00	
41 00	13 01 15	
12 41 25	12 42 00	46

FMS.

## DREDGING CABLE.

M. Down.	Up.	M.
1 57 30	2 23 20	
58 15	2 21 05	
58 30	2 20 00	
58 50	2 19 00	
11 40	2 18 30	
15 15	2 17 30	
17 50	2 16 30	
1 22 30	2 15 20	
1 20 30	2 14 10	

700 300

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. 5688 Date, 23 July, 1911

Sdg. Mch. Reel Shot/Lead lbs.

Turns 55 Cor'n Depth 55 fms.

Sdg. Cup Amt. Bot'm Sample 100

Character of Bottom M.G.

Thermom. { Make No. 10000 Cor'n { Instr. Stem.

Bottom Reading 29.80 Cor'd Temp. 39.9

Temp. Surf. { 60.0 Time 2.4 } Air { 62.0 }  
                  { 59.0 Time 3.5 }           { 61.0 }

Density: Surf. fms.

Wind: Direction NW Force 3

Baromet. 30.03 Amt. of Clouds 9 State of Sea S

Weather bc

Direction and Force of Current { Surface Bottom

Tide

General Locality

Position

Chart used: No. 1101310 Ed'n

Drift: Direction Distance

Depth of Haul

Apparatus and Rig used

Remarks

Time towing h. m.

Deck Officer Recorder

## SOUNDING WIRE.

M. Down. Up. M.

2 20 30 2 43 55  
 32 05 46 52  
 33 50 36 30  
 35 40 38 36  
 2 25 00 2 36 40

FMS.

0  
 100  
 200  
 300  
 400  
 500  
 600  
 700  
 800  
 900  
 1000  
 1100  
 1200  
 1300  
 1400  
 1500  
 1600  
 1700  
 1800  
 1900  
 2000  
 2100  
 2200  
 2300  
 2400  
 2500  
 2600  
 2700  
 2800  
 2900  
 3000  
 3100  
 3200  
 3300  
 3400  
 3500  
 3600  
 3700  
 3800  
 3900  
 4000  
 4100  
 4200  
 4300  
 4400  
 4500  
 4600  
 4700  
 4800  
 4900

## DREDGING CABLE.

M. Down. Up. M.

2 20 30 2 43 55  
 32 05 46 52  
 33 50 36 30  
 35 40 38 36  
 2 25 00 2 36 40  
 3 22 30 3 52 20

Dredge } No. 5611 Date, 11/11/19

Sdg. Mch. Lucas Reel Shot 35 lbs.

Turns 71 Cor'n Depth 87.9 fms.

Sdg. Cup Sigsbee Amt. Bot'm Sample 2 1/2 oz.

Character of Bottom

Thermom. { Make No. Cor'n { Instr. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 58° Time 6:00 } Air { 58°  
158° Time 8 am } 58°

Density: Surf. fms.

Wind: Direction N.W. Force 3

Baromet. 30.00 Amt. of Clouds 10 State of Sea S

Weather over

Direction and Force of Current { Surface Bottom

Tide

General Locality

The Mouth of the St. Lawrence River

Position 29° 23' 00" N, 116° 14' 00" W

Chart used: No. 1143 Ed'n

Drift: Direction N. 87° W. Distance ?

Depth of Haul Bottom

Apparatus and Rig used 12'

Time towing 30 m.

Remarks: Thermom. failed to register

Bar. - 26.2

Temp. 11.5

Surf. - 24.1

Temp. 14.2

Deck Officer Recorder

Mr. J. H. ... 11-1023

## SOUNDING WIRE.

M. Down. Up. M.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

12	10	34	50	100	51	20	46	10	
13	20	33	20	200	54	40	43	10	
14	10	31	45	300	58	00	40	30	
				400					
				500					
17	00	26	10	600	07	40	31	20	
				700					
19	00	22	50	800	13	45	24	30	
				900	16		21	00	
				1000	19	35	17	40	
				1100	22	20	13	40	
				1200	25	30	10	00	
				1300	28	25	06	40	
				1400	31	25			
				1500	31	55	8	02	00
				1600					
				1700					
				1800					
				1900					
				2000					
				2100					
				2200					
				2300					
				2400					
				2500					
				2600					
				2700					
				2800					
				2900					
				3000					
				3100					
				3200					
				3300					
				3400					
				3500					
				3600					
				3700					
				3800					
				3900					
				4000					
				4100					
				4200					
				4300					
				4400					
				4500					
				4600					
				4700					
				4800					
				4900					

Dredge } No. 1101 Date, Feb 24, 1901

Sdg. Mch. Reel Shot/Lead lbs.

Turns 1101 Cor'n Depth 1101 fms.

Sdg. Cup Amt. Bot'm Sample 2 13

Character of Bottom gy M Glob

Thermom. { Make No. Cor'n { Instr. Stem.

Bottom Reading 38° Cor'd Temp. 38.1

Temp. Surf. { 58° Time 10 Air { 60°  
56° Time 12.2

Density: Surf. fms.

Wind: Direction NW Force 3

Baromet. 30.02 Amt. of Clouds 10 State of Sea 8

Weather overcast

Direction and Force of Current { Surface Bottom

Tide

General Locality off Cape Cod, N. Atlantic B.

Position 37° 24' 20" N, 116° 13' 40" W

Chart used: No. H.C. 1192 Ed'n

Drift: Direction S. 82° W. Distance ?

Depth of Haul Bottom

Apparatus and Rig used 12' beam trawl, 1/2 inch mesh

Time towing h. 18 m.

Remarks: Water 11.6  
Sl. sp. 2.8  
Temp. 14.5  
Sp. 22.9

Deck Officer Recorder

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
<i>7</i> M. DOWN.	UP.	<i>7</i> M.		<i>2</i> M. DOWN.	UP.	<i>2</i> M.
10 07 20			0	10 44 15	12 56 30	
08 15	34 15		100	48 15	53 05	
09 05	33 00		200	51 20	49 45	
10 00	31 40		300	54 45	46 10	
10 50	30 20		400	58 00	42 55	
11 45	29 00		500	11 00 50	39 00	
12 45	27 40		600	05 45	35 12	
13 45	26 10		700	06 30	31 10	
14 50	24 40		800	09 15	26 45	
15 15	23 10		900	12 00	22 00	
16 55	21 40		1000	14 45	18 00	
10 18 00	10 20 00	11 01	1100	17 30	12 30	
			1200	20 30	08 25	
			1300	23 30	04 40	
			1400	26 30	00 00	
			1500	30 15	55 00	
			1600	11 15 15	11 51 50	
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. \_\_\_\_\_ Date, \_\_\_\_\_, 19\_\_\_\_  
Hydros. }  
Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot/Lead \_\_\_\_\_ lbs.  
Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth \_\_\_\_\_ fms.  
Sdg. Cup \_\_\_\_\_ Amt. Bot'm Sample \_\_\_\_\_  
Character of Bottom \_\_\_\_\_

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
              { No. 98284                 { Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. 34.2  
Temp. Surf. { 70 Time 6:20 A } Air { 57  
                  {                 {                 {                 {

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_  
Wind: Direction WNW Force 2-3  
Baromet. 29.7 Amt. of Clouds 17 State of Sea \_\_\_\_\_  
Weather \_\_\_\_\_

Direction and Force of Current { Surface \_\_\_\_\_  
  { Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality \_\_\_\_\_

Position 21 08 20 N 118 20 30 W

Chart used: No. 1000 Ed'n \_\_\_\_\_

Drift: Direction S 82° W Distance ?

Depth of Haul Bottom

Apparatus and Rig used 12' beam trawl

Time towing h. 20 m.

Remarks:

Ref - Temp 11.8  
Sp. gr. 1.027 (?)  
Surf. Temp. 14.6  
Sp. gr. 1.024

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_



## SOUNDING WIRE.

M. Down. Up. M.

FMS.

## DREDGING CABLE.

A M. Down. Up. A M.

0

6 41 00 8 44 45

100

45 00 41 45

200

48 25 38 50

300

51 50 35 50

400

55 20 32 35

500

59 10 29 15

600

02 35 25 40

700

05 50 21 55

800

08 20 18 00

900

11 20 14 30

1000

14 30 10 00

1100

17 20

1200

21 00 8 01 20

1300

24 10 56 50

1400

27 25 52 30

1500

29 30 7 49 30

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. 569 Date, May 11, 1911

Sdg. Mch. Reel Shot/Lead lbs.

Turns 1076 Cor'n Depth 1076 fms.

Sdg. Cup Amt. Bot'm Sample 1076

Character of Bottom gy. M. NR

Thermom. { Make No. Cor'n { Instr. Stem.

Bottom Reading 37° Cor'd Temp. 37.1

Temp. Surf. { 57° Time 11:00 Air { 57° 60° Time 11:00 Air { 61°

Density: Surf. fms.

Wind: Direction Ok N.W. Force 2

Baromet. 29.77 Amt. of Clouds 100 State of Sea

Weather O and bc.

Direction and Force of Current { Surface Bottom

Tide

General Locality Lat 31° 23' 45" N Long 121° 31' 00" W

Off Lower Cal., Phil.

Position

Chart used: No. H.O. 1006 Ed'n

Drift: Direction 2.52° N. Distance

Depth of Haul Bottom

Apparatus and Rig used 12' beam trawl

2 m. in net.

Time towing h. 20 m.

Remarks: Net hauled in 12.2

Sp. Gr. 25.8

Sp. Gr. 15.0

Sp. Gr. 23.6

Deck Officer H. E. ... Recorder

11-1023

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
11 20 45	11 25 45	0	0	12 20 45	12 25 45	0
20 45	25 45	100	100	10 45	15 30	100
30 45	35 45	200	200	15 30	10 10	200
40 45	45 00	300	300	21 30	06 50	300
50 45	55 00	400	400	25 10	02 25	400
1 00 45	1 00 00	500	500	25 40	57 40	500
2 00 45	2 00 00	600	600	33 10	50 05	600
3 00 45	3 00 00	700	700	35 40	51 45	700
4 00 45	4 00 00	800	800	37 20	52 40	800
5 00 45	5 00 00	900	900	40 10	49 10	900
6 00 45	6 00 00	1000	1000	42 40	46 10	1000
11 31 15	11 32 45	1100	1100	45 10	38 45	1100
		1200	1200	47 40	34 45	1200
		1300	1300	50 10	31 40	1300
		1400	1400	52 40	27 30	1400
		1500	1500	55 10	23 10	1500
		1600				
		1700				
		1800				
		1900				
		2000				
		2100				
		2200				
		2300				
		2400				
		2500				
		2600				
		2700				
		2800				
		2900				
		3000				
		3100				
		3200				
		3300				
		3400				
		3500				
		3600				
		3700				
		3800				
		3900				
		4000				
		4100				
		4200				
		4300				
		4400				
		4500				
		4600				
		4700				
		4800				
		4900				

Dredge } No. 56 Date, , 19  
Hydrog. }  
Sdg. Mch. Reel Shot } lbs.  
Trawl }  
Turns Cor'n Depth fms.  
Sdg. Cup Siephee Amt. Bot'm Sample none  
Character of Bottom fine  
Thermom. { Make Cor'n { Instr.  
              { No.                 { Stem.  
Bottom Reading ? Cor'd Temp.  
Temp. Surf. { 54 Time 6:00 } Air { 53  
                  {                 {                 {  
Density: Surf. fms.  
Wind: Direction Variable Force  
Baromet. Amt. of Clouds State of Sea  
Weather

Direction and Force of Current { Surface  
  { Bottom

Tide

General Locality

Position

Chart used: No.

Ed'n

Drift: Direction

Distance

Depth of Haul

Apparatus and Rig used

Time towing

h. 30 m.

Remarks:

Deck Officer

Recorder

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
		00	0			
		30	100			
		10	200			
		05	300		15	
		20	400		05	
		10	500		50	
			600		10	
			700		20	
			800		10	
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge No. \_\_\_\_\_ Date, \_\_\_\_\_, 19\_\_

*Sdg. Mch.* \_\_\_\_\_ *Reel* \_\_\_\_\_ *Shot* \_\_\_\_\_ *lbs.* \_\_\_\_\_

Turns 640 Cor'n - Depth 640 fms.

Sdg. Cup Sigsbee Amt. Bot'm Sample 100

Character of Bottom gn M

Thermom. { Make N.2.  
              { No. 213

Cor'n { Instr. \_\_\_\_\_  
          { Stem. \_\_\_\_\_

Bottom Reading ..... Cor'd Temp. ....

Temp. Surf. { 57° Time 9:10 a. } Air { 62°  
57° Time 10:00 a. } 56°

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

Wind: Direction Variable Force 1

<i>Baromet.</i>	<i>Amt. of</i>	<i>State of</i>
	<i>Clouds</i>	<i>Sea</i>

Weather

Direction and Force of Current. { Surface .....  
 { Bottom .....

General Locality *2.5 km. N. of M. 100, S. 100*

Position 31° 26' 2" N, 120° 2' 28" W.

Chart used: No. 64502 Ed'n \_\_\_\_\_

Drift: Direction *S. 63° W.* Distance *?*

Depth of Haul Bottom .....

Apparatus and Rig used 12'Time towing  $t$  h.  $\times 10^{-3}$  m.

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
9 18 15	3 27 33		0	7 34 20	11 33 12	
10 15	3 15		100	38 25	10 15	50
10 15	3 10		200		9 50	100
11 10	3 05		300		9 35	150
13 10	2 55		400		9 20	200
15 15	2 45		500		9 05	250
15 15	2 35		600		8 50	300
9 15 15	17 25	6 15	700		8 35	350
			800		8 20	400
			900		8 05	450
			1000		7 50	500
			1100		7 35	550
			1200		7 20	600
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 1111 Date, 1/11/1911

Hydrog. }  
Sdg. Mch. Reel Shot Lead lbs.

Turns 534 Cor'n Depth 534 fms.

Sdg. Cup Sieve Amt. Bot'm Sample

Character of Bottom

Thermom. { Make No. Cor'n { Instr. Stem.

Bottom Reading 34 Cor'd Temp. 21.4

Temp. Surf. { 57° Time 1:00 } Air { 58°  
56° Time 2:00 } 57°

Density: Surf. fms.

Wind: Direction N.W. Force 3

Baromet. Amt. of Clouds 75 State of Sea

Weather

Direction and Force of Current { Surface Bottom

Tide

General Locality

Position 35 32' 10" N 112 14' 20" W

Chart used: No. 6550 Ed'n

Drift: Direction S. 85° E Distance

Depth of Haul bottom

Apparatus and Rig used

Time towing h. 3.0 m.

Remarks:

1 sample 11

Sdg. No. 253

Sdg. No. 242

Deck Officer Recorder



## SOUNDING WIRE.

FMS.

## DREDGING CABLE.

M. Down. Up. 22 M.

M. Down. Up. 7 M.

1	07	30	1	22	10	0	1	30	00	3	21	30	
	08	50		20	55	100		33	40		18	55	
	09	45		19	40	200		37	00		16	10	
	10	40		18	25	300		40	30		13	15	
	11	35		17	05	400		44	00		10	30	
	12	35		15	20	500		47	30		07	25	
1	13	40	1	14	05	600		50	00		04	25	
						700		53	50	3	01	20	
						800	*	1	57	20	5	58	10
						900		2	53	10	5	55	00
						1000			07	30		51	45
						1100			10	40		48	30
						1200		2	14	20	2	44	30
						1300							
						1400							
						1500							
						1600							
						1700	*						
						1800							
						1900							
						2000							
						2100							
						2200							
						2300							
						2400							
						2500							
						2600							
						2700							
						2800							
						2900							
						3000							
						3100							
						3200							
						3300							
						3400							
						3500							
						3600							
						3700							
						3800							
						3900							
						4000							
						4100							
						4200							
						4300							
						4400							
						4500							
						4600							
						4700							
						4800							
						4900							

Dredge } No. 3236 Date, July 21, 1919  
Hydrog }  
Sdg. Mch. 5000 Reel Shot/Lead lbs.  
Turns 100 Cor'n Depth fms  
Sdg. Cup Amt. Bot'm Sample  
Character of Bottom

Thermom. { Make WZ. Cor'n { Instr. No. 108154 Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 54.0 Time 6:00 } Air { 50.0 }  
Time 7:00

Density: Surf. fms.

Wind: Direction N.W. Force 4

Baromet. Amt. of Clouds State of Sea

Weather bc

Direction and Force of Current { Surface Bottom

Tide

General Locality Lower Pt. Rudder Pt.  
Pine Mt. Pt. 42° E.

Position 35° 18' 30" N, 121° 58' 00" W.

Chart used: No. 5002 Ed'n

Drift: Direction 27.63° W. Distance

Depth of Haul Bottom

Apparatus and Rig used

Time towing h. m.

Remarks:

Bottom - Temp. 10.5  
Sdg. - Temp. 12.2  
8.5 23.7

Deck Officer Recorder Johnson

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
M. Down.	Up.	M.			M. Down.	Up.	M.	
15 30	6 31	40		0	6 41	20	7 44	40
11 5				100				
18 20	25	40		200				
19 20	25	40		300	53	00	34	10
21 00	23	40		400	5			
1 21 45	6 22 45	440		500	5			
				600	1 05			
				700	1 07 20	7		
				800				
				900				
				1000				
				1100				
				1200				
				1300				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
				2200				
				2300				
				2400				
				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
				3300				
				3400				
				3500				
				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

Dredge { No. 7207 Date, 1911, 19  
Hydrog. {  
Sdg. Mch. Reel Shot Lead 3 lbs.  
Turns 45 Cor'n — Depth 38 fms.  
Sdg. Cup Sigsbee Amt. Bot'm Sample  
Character of Bottom gy Sbk S

Thermom. { Make 713 Cor'n { Instr.  
No. 108154 Stem.

Bottom Reading 39.9° Cor'd Temp. 39.8

Temp. Surf. { 52° Time 10 a } Air { 55°  
50° Time 11 a } 56°

Density: Surf. fms.

Wind: Direction NW Force 4-3

Baromet. 30.18 Amt. of Clouds 5 State of Sea

Weather bc.

Direction and Force of Current { Surface  
Bottom

Tide

General Locality Near Point Llanca

Lat 71.40° N, Long 71.70° W

Position 35° 35' 00" N, 121° 54' 00" W

Chart used: No. 5002 Ed'n

Drift: Direction 71.72° W. Distance 2

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz, 160 lb. net

3 wks, 2 fluke.

Time towing h. 31 m.

Remarks: Net bottom in sea

Proton - Temp. 11.8

Sp. Gr. 75.2

Temp. 12.5

Sp. Gr. 71.0

Deck Officer Mr. Thompson Recorder

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
10 01 40	10 14 00		0	10 20 30	11 05 00	
02 00	17 40		100	24 30	39 00	
04 00	" 30		200	27 00	36 00	
06 00	10 15		300	30 15	33 00	
07 55	09 00		400	33 30	30 00	
10 05 40	07 47 45		500	37 15	27 00	
			600	40 00	24 00	
			700	43 30	21 00	
			750 800	10 47 30	18 40	
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 578 Date, Oct 1, 1919  
Hydrog. }  
Sdg. Mch. Lucas Reel Lucas Shot/Lead 35 lbs.  
Turns 475 Cor'n Depth 475 fms.  
Sdg. Cup Lign. Amt. Bot'm Sample  
Character of Bottom No sample.

Thermom. { Make 7.2 Cor'n { Instr.  
              { No. 101154               { Stem.

Bottom Reading 42° Cor'd Temp. 39.9

Temp. Surf. { 53° Time 2:00 } Air { 53°  
                  {               Time 3:10 }       {       

Density: Surf. fms.

Wind: Direction N.W. Force 3-4

Baromet. 30.1 Amt. of Clouds State of Sea

Weather

Direction and Force of Current { Surface  
  { Bottom

Tide

General Locality Pt. Luce, Alaska

Position 55° 50' 00" N 121° 49' 30" W

Chart used: No. 6501 Ed'n

Drift: Direction 71.75° W. Distance ?

Depth of Haul bottom

Apparatus and Rig used 12' Ag. rig, 160 lb. sinker,

100 lb. net

Time towing h. 2.0 m.

Remarks: Spent at 20 m. - 100 lb. sinker

Bottom! Sp. Sh. 25.0

Deck Officer Recorder

SOUNDING WIRE.					FMS.	DREDGING CABLE.						
M. Down.		Up.	P. M.			M. Down.		Up.	P. M.			
2	02	20		20	15	0	2	28	15	3	48	20
	03	30		17	55	100		31	35		49	20
	04	30		16	05	200		34	35		41	35
	05	25		14	10	300		37	55		38	45
	06	25		12	15	400		41	10		36	00
	07	20				500		44	50		33	00
						600		47	40		30	00
						700		50	35		27	00
						800		53	30		23	10
						900	2	57	20	3	17	10
						1000						
						1100						
						1200						
						1300						
						1400						
						1500						
						1600						
						1700						
						1800						
						1900						
						2000						
						2100						
						2200						
						2300						
						2400						
						2500						
						2600						
						2700						
						2800						
						2900						
						3000						
						3100						
						3200						
						3300						
						3400						
						3500						
						3600						
						3700						
						3800						
						3900						
						4000						
						4100						
						4200						
						4300						
						4400						
						4500						
						4600						
						4700						
						4800						
						4900						

Dredge } No. 1 Date, 1901, 19  
Hydrog. }  
Sdg. Mch. 27 Reel Shot/Lead 2 lbs.  
Turns Cor'n Depth fms.  
Sdg. Cup Amt. Bot'm Sample  
Character of Bottom

Thermom. { Make W No. 1 Cor'n { Instr. Stem.  
Bottom Reading 300 Cor'd Temp. 27.7  
Temp. Surf. { Time 1 Air { 1, 2  
Time 1

Density: Surf. fms.  
Wind: Direction NW Force 4  
Baromet. 30 Amt. of Clouds 5 State of Sea II  
Weather bc

Direction and Force of Current { Surface Bottom

Tide

General Locality 100 fms. S. of Pt. Ledge, N. H.  
Pt. Ledge, N. H. 7/12/01  
Position 42° 30' N. 71° 15' W.  
Chart used: No. 1 Ed'n  
Drift: Direction 2 1/2 mi. Distance 1  
Depth of Haul Bottom  
Apparatus and Rig used 15' beam trawl, 1/2" mesh, 20 lb. line.

Time towing h. m.

Remarks:  
2 - 1st Gr. 24.0  
Fines. 13.7  
2nd Gr. - 20.4 24.2  
Fines. 13.2

Deck Officer Recorder



SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
6 00	5 45		0	6 15	5 30	
	5 35		100	25 15	23 45	
	5 25		200	31	23 15	
	5 15		300	37	22 45	
	5 05		400	43	22 15	
	4 55		500	49	21 45	
	4 45		600	55	21 15	
	4 35		700	61	20 45	
	4 25		800	67	20 15	
	4 15		900	73	19 45	
	4 05		1000	79	19 15	
	3 55		1100			
	3 45		1200			
	3 35		1300			
	3 25		1400			
	3 15		1500			
	3 05		1600			
	2 55		1700			
	2 45		1800			
	2 35		1900			
	2 25		2000			
	2 15		2100			
	2 05		2200			
	1 55		2300			
	1 45		2400			
	1 35		2500			
	1 25		2600			
	1 15		2700			
	1 05		2800			
	0 55		2900			
	0 45		3000			
	0 35		3100			
	0 25		3200			
	0 15		3300			
	0 05		3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

*Dredge* { *No.* \_\_\_\_\_ *Date,* \_\_\_\_\_, 19\_\_\_\_  
*Hydrog.* {  
*Sdg. Mch.* \_\_\_\_\_ *Reel* \_\_\_\_\_ *Shot* {  
*Lead* { \_\_\_\_\_ *lbs.* \_\_\_\_\_  
*Turns* \_\_\_\_\_ *Cor'n* \_\_\_\_\_ *Depth* \_\_\_\_\_ *fms.* \_\_\_\_\_  
*Sdg. Cup* \_\_\_\_\_ *Amt. Bot'm* \_\_\_\_\_  
*Character of* \_\_\_\_\_ *Sample* \_\_\_\_\_  
*Bottom* \_\_\_\_\_

*Thermom.* { *Make* \_\_\_\_\_ *Cor'n* { *Instr.* \_\_\_\_\_  
 { *No.* \_\_\_\_\_ { *Stem.* \_\_\_\_\_

*Bottom Reading* \_\_\_\_\_ *Cor'd Temp.* \_\_\_\_\_

*Temp. Surf.* { \_\_\_\_\_ *Time* \_\_\_\_\_ { *Air* {  
 { \_\_\_\_\_ *Time* \_\_\_\_\_ { \_\_\_\_\_

*Density: Surf.* \_\_\_\_\_ *fms.* \_\_\_\_\_

*Wind: Direction* \_\_\_\_\_ *Force* \_\_\_\_\_

*Baromet.* \_\_\_\_\_ *Amt. of* \_\_\_\_\_ *State of* \_\_\_\_\_  
 \_\_\_\_\_ *Clouds* \_\_\_\_\_ *Sea* \_\_\_\_\_

*Weather* \_\_\_\_\_

*Direction and Force* { *Surface* \_\_\_\_\_  
*of Current.* { *Bottom* \_\_\_\_\_

*Tide* \_\_\_\_\_

*General Locality* \_\_\_\_\_

*Position* \_\_\_\_\_

*Chart used: No.* \_\_\_\_\_ *Ed'n* \_\_\_\_\_

*Drift: Direction* \_\_\_\_\_ *Distance* \_\_\_\_\_

*Depth of Haul* \_\_\_\_\_

*Apparatus and Rig used* \_\_\_\_\_

*Time towing* \_\_\_\_\_ *h.* \_\_\_\_\_ *m.* \_\_\_\_\_

*Remarks:* \_\_\_\_\_

## SOUNDING WIRE.

M. Down. | Up. | M.

FMS.

## DREDGING CABLE.

M. Down. | Up. | M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. _____		Date, _____, 19____	
Hydrog. }			
Sdg. Mch. _____	Reel _____	Shot } Lead }	lbs. _____
Turns _____	Cor'n _____	Depth _____	fms. _____
Sdg. Cup _____	Amt. Bot'm Sample _____		
Character of Bottom _____			
Thermom. { Make _____ { No. _____		Cor'n { Instr. _____ { Stem. _____	
Bottom Reading _____		Cor'd Temp. _____	
Temp. Surf. { _____ { _____		Time _____ { _____	
Density: Surf. _____		fms. _____	
Wind: Direction _____		Force _____	
Baromet. _____	Amt. of Clouds _____	State of Sea _____	
Weather _____			
Direction and Force of Current { Surface _____ { Bottom _____			
Tide _____			
General Locality _____			
Position _____			
Chart used: No. _____		Ed'n _____	
Drift: Direction _____		Distance _____	
Depth of Haul _____			
Apparatus and Rig used _____			
		Time towing _____ h. _____ m.	
Remarks: _____			
Deck Officer _____ Recorder _____			

## SOUNDING WIRE.

M. Down. Up. M.

FMS.

## DREDGING CABLE.

M. Down. Up. M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. .... Date, ....., 19...

Sdg. Mch. .... Reel ..... Shot }  
Lead } lbs.

Turns ..... Cor'n ..... Depth ..... fms.

Sdg. Cup ..... Amt. Bot'm  
Sample .....

Character of  
Bottom .....

Thermom. { Make ..... Cor'n { Instr. ....  
No. .... Stem. ....

Bottom Reading ..... Cor'd Temp. ....

Temp. Surf. { ..... Time ..... } Air {  
Time ..... }

Density: Surf. .... fms. ....

Wind: Direction ..... Force .....

Baromet. .... Amt. of  
Clouds ..... State of  
Sea .....

Weather .....

Direction and Force { Surface .....  
of Current. { Bottom .....

Tide .....

General Locality .....

Position .....

Chart used: No. .... Ed'n .....

Drift: Direction ..... Distance .....

Depth of Haul .....

Apparatus and Rig used .....

Time towing ..... h. .... m.

Remarks: .....

Deck Officer ..... Recorder .....

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. \_\_\_\_\_ Date, \_\_\_\_\_, 19\_\_\_\_  
Hydrog. }

Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot } lbs.  
Lead }

Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth \_\_\_\_\_ fms.

Sdg. Cup \_\_\_\_\_ Amt. Bot'm Sample \_\_\_\_\_

Character of Bottom \_\_\_\_\_

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
                  { No. \_\_\_\_\_                   { Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. { \_\_\_\_\_ Time \_\_\_\_\_ } Air { \_\_\_\_\_  
                  { \_\_\_\_\_ Time \_\_\_\_\_ }

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

Wind: Direction \_\_\_\_\_ Force \_\_\_\_\_

Baromet. \_\_\_\_\_ Amt. of Clouds \_\_\_\_\_ State of Sea \_\_\_\_\_

Weather \_\_\_\_\_

Direction and Force { Surface \_\_\_\_\_  
of Current.            { Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality \_\_\_\_\_

Position \_\_\_\_\_

Chart used: No. \_\_\_\_\_ Ed'n \_\_\_\_\_

Drift: Direction \_\_\_\_\_ Distance \_\_\_\_\_

Depth of Haul \_\_\_\_\_

Apparatus and Rig used \_\_\_\_\_

Time towing \_\_\_\_\_ h. \_\_\_\_\_ m.

Remarks: \_\_\_\_\_

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_



## SOUNDING WIRE.

M. Down. | Up. | M.

FMS.

## DREDGING CABLE.

M. Down. | Up. | M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. \_\_\_\_\_ Date, \_\_\_\_\_, 19 ..  
Hydrog. }

Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot }  
Lead } \_\_\_\_\_ lbs.

Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth \_\_\_\_\_ fms.

Sdg. Cup \_\_\_\_\_ Amt. Bot'm  
Sample \_\_\_\_\_

Character of  
Bottom \_\_\_\_\_

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
No. \_\_\_\_\_ Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. { Time \_\_\_\_\_ } Air {  
Time \_\_\_\_\_ }

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

Wind: Direction \_\_\_\_\_ Force \_\_\_\_\_

Baromet. \_\_\_\_\_ Amt. of  
Clouds \_\_\_\_\_ State of  
Sea \_\_\_\_\_

Weather \_\_\_\_\_

Direction and Force { Surface \_\_\_\_\_  
of Current. { Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality \_\_\_\_\_

Position \_\_\_\_\_

Chart used: No. \_\_\_\_\_ Ed'n \_\_\_\_\_

Drift: Direction \_\_\_\_\_ Distance \_\_\_\_\_

Depth of Haul \_\_\_\_\_

Apparatus and Rig used \_\_\_\_\_

Time towing \_\_\_\_\_ h. \_\_\_\_\_ m.

Remarks: \_\_\_\_\_

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
--- M. Down.	Up.	--- M.		--- M. Down.	Up.	--- M.
			0			
			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. \_\_\_\_\_ Date, \_\_\_\_\_, 19\_\_  
Hydrog. }

Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot } lbs.  
Lead }

Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth \_\_\_\_\_ fms.

Sdg. Cup \_\_\_\_\_ Amt. Bot'm  
Sample \_\_\_\_\_

Character of  
Bottom \_\_\_\_\_

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
              { No. \_\_\_\_\_                 { Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. { \_\_\_\_\_ Time \_\_\_\_\_ } Air { \_\_\_\_\_  
                  { \_\_\_\_\_ Time \_\_\_\_\_ }

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

Wind: Direction \_\_\_\_\_ Force \_\_\_\_\_

Baromet. \_\_\_\_\_ Amt. of Clouds \_\_\_\_\_ State of Sea \_\_\_\_\_

Weather \_\_\_\_\_

Direction and Force of Current. { Surface \_\_\_\_\_  
  { Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality \_\_\_\_\_

Position \_\_\_\_\_

Chart used: No. \_\_\_\_\_ Ed'n \_\_\_\_\_

Drift: Direction \_\_\_\_\_ Distance \_\_\_\_\_

Depth of Haul \_\_\_\_\_

Apparatus and Rig used \_\_\_\_\_

Time towing \_\_\_\_\_ h. \_\_\_\_\_ m.

Remarks: \_\_\_\_\_

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

11-1023

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0			
			100			
			200			
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. .... Date, ....., 19 .....

Hydrog. }  
Sdg. Mch. .... Reel ..... Shot }  
Lead } ..... lbs.

Turns ..... Cor'n ..... Depth ..... fms.

Sdg. Cup ..... Amt. Bot'm  
Sample .....

Character of  
Bottom .....

Thermom. { Make ..... Cor'n { Instr. ....  
No. .... Stem. ....

Bottom Reading ..... Cor'd Temp. ....

Temp. Surf. { ..... Time ..... } Air {  
Time ..... }

Density: Surf. .... fms. ....

Wind: Direction ..... Force .....

Baromet. .... Amt. of  
Clouds ..... State of  
Sea. ....

Weather .....

Direction and Force { Surface .....  
of Current. { Bottom .....

Tide .....

General Locality .....

Position .....

Chart used: No. .... Ed'n .....

Drift: Direction ..... Distance .....

Depth of Haul .....

Apparatus and Rig used .....

Time towing ..... h. .... m.

Remarks: .....

Deck Officer ..... Recorder .....



SOUNDING WIRE.						FMS.	DREDGING CABLE.					
M. Down.			Up.				M. Down.			Up.		
						0						
						100						
						200						
						300						
						400						
						500						
						600						
						700						
						800						
						900						
						1000						
						1100						
						1200						
						1300						
						1400						
						1500						
						1600						
						1700						
						1800						
						1900						
						2000						
						2100						
						2200						
						2300						
						2400						
						2500						
						2600						
						2700						
						2800						
						2900						
						3000						
						3100						
						3200						
						3300						
						3400						
						3500						
						3600						
						3700						
						3800						
						3900						
						4000						
						4100						
						4200						
						4300						
						4400						
						4500						
						4600						
						4700						
						4800						
						4900						

Dredge } No. \_\_\_\_\_ Date, \_\_\_\_\_, 19\_\_\_\_  
Hydrog. }

Sdg. Mch. \_\_\_\_\_ Reel \_\_\_\_\_ Shot }  
Lead } lbs. \_\_\_\_\_

Turns \_\_\_\_\_ Cor'n \_\_\_\_\_ Depth \_\_\_\_\_ fms. \_\_\_\_\_

Sdg. Cup \_\_\_\_\_ Amt. Bot'm  
Sample \_\_\_\_\_

Character of  
Bottom \_\_\_\_\_

Thermom. { Make \_\_\_\_\_ Cor'n { Instr. \_\_\_\_\_  
                  { No. \_\_\_\_\_                   { Stem. \_\_\_\_\_

Bottom Reading \_\_\_\_\_ Cor'd Temp. \_\_\_\_\_

Temp. Surf. { \_\_\_\_\_ Time \_\_\_\_\_ } Air { \_\_\_\_\_  
                  { \_\_\_\_\_ Time \_\_\_\_\_ }                   { \_\_\_\_\_

Density: Surf. \_\_\_\_\_ fms. \_\_\_\_\_

Wind: Direction \_\_\_\_\_ Force \_\_\_\_\_

Baromet. \_\_\_\_\_ Amt. of  
Clouds \_\_\_\_\_ State of  
Sea \_\_\_\_\_

Weather \_\_\_\_\_

Direction and Force { Surface \_\_\_\_\_  
of Current.                   { Bottom \_\_\_\_\_

Tide \_\_\_\_\_

General Locality \_\_\_\_\_

Position \_\_\_\_\_

Chart used: No. \_\_\_\_\_ Ed'n \_\_\_\_\_

Drift: Direction \_\_\_\_\_ Distance \_\_\_\_\_

Depth of Haul \_\_\_\_\_

Apparatus and Rig used \_\_\_\_\_

Time towing \_\_\_\_\_ h. \_\_\_\_\_ m.

Remarks: \_\_\_\_\_

Deck Officer \_\_\_\_\_ Recorder \_\_\_\_\_

SOUNDING WIRE.					FMS.	DREDGING CABLE.				
M. Down.		Up.		M.		M. Down.		Up.		M.
					0					
					100					
					200					
					300					
					400					
					500					
					600					
					700					
					800					
					900					
					1000					
					1100					
					1200					
					1300					
					1400					
					1500					
					1600					
					1700					
					1800					
					1900					
					2000					
					2100					
					2200					
					2300					
					2400					
					2500					
					2600					
					2700					
					2800					
					2900					
					3000					
					3100					
					3200					
					3300					
					3400					
					3500					
					3600					
					3700					
					3800					
					3900					
					4000					
					4100					
					4200					
					4300					
					4400					
					4500					
					4600					
					4700					
					4800					
					4900					

1236  
 70.00 372  
 2.72  
 5.00  
 77.72  
 777  
 85.49

11-18-40  
 10-47-20  
 31



3 64.55  
 2 45.30  
 29-25

